Semiconductor

Data Sheet

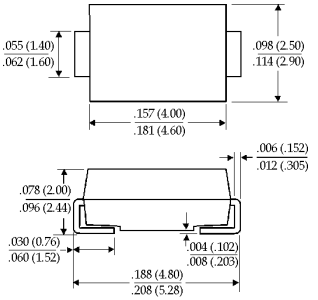
1.0 Amp SURFACE MOUNT PLASTIC SILICON DIODES

SMA11...110 Series

Description

Mechanical Dimensions

DO-214AC (SMA)



Dimensions in inches and (millimeters)

Features

- **LOW COST**
- **HIGH CURRENT CAPABILITY**
- **HIGH SURGE CAPABILITY**
- **LOW FORWARD VOLTAGE WITH LOW LEAKAGE CURRENT**
- **MEETS UL SPECIFICATION 94V-0**

	SMA11 . . . 110 Series						Units
Maximum Ratings	**SMA11**	**SMA12**	**SMA14**	**SMA16**	**SMA18**	**SMA110**	
Peak Repetitive Reverse Voltage...V_{RRM}	100	200	400	600	800	1000	Volts
RMS Reverse Voltage...$V_{R(rms)}$	70	140	280	420	560	700	Volts
DC Blocking Voltage...V_{DC}	100	200	400	600	800	1000	Volts
Average Forward Rectified Current...$I_{F(av)}$	1.0						Amps
Non-Repetitive Peak Forward Surge Current...I_{FSM}	30						Amps
Operating & Storage Temperature Range...T_J, T_{STRG}	-65 to 175						°C
Electrical Characteristics							
Maximum Forward Voltage @ 1.0A...V_F	1.1						Volts
Maximum Full Load Reverse Current...I_R(av)	30						µAmps
Maximum DC Reverse Current...I_R @ Rated DC Blocking Voltage T_C = 25°C	5.0						µAmps
T_C = 75°C	50						µAmps
Typical Junction Capacitance...C_J *(Note 1)*	30						pF

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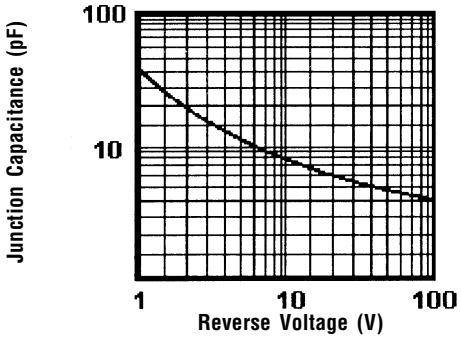
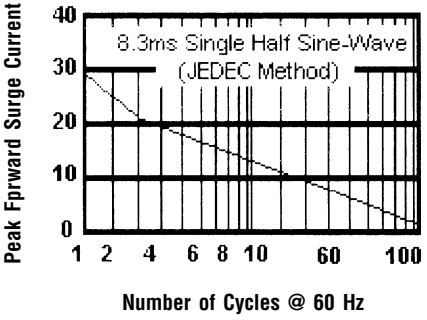
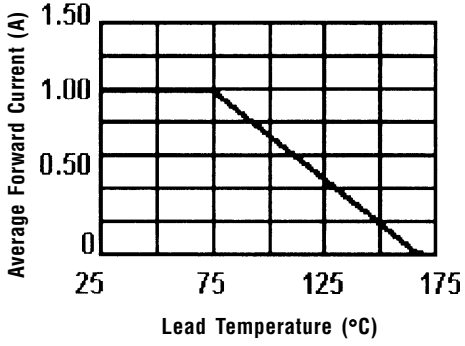
Typical Junction Capacitance



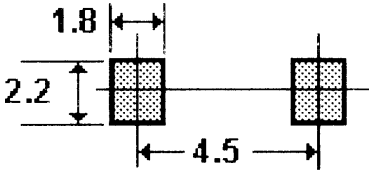
Non-Repetitive Peak Forward Surge Current



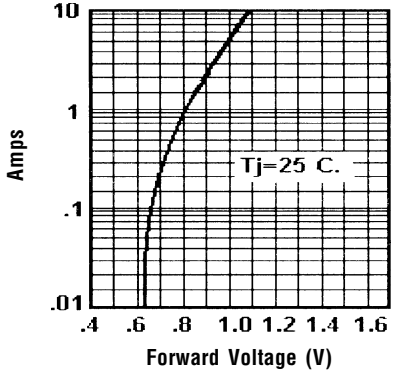
Forward Current Derating Curve



Recommended Soldering Pad Layout



Typical Instantaneous Forward Characteristics



Ratings at 25 Deg. C ambient temperature unless otherwise specified.

Single Phase Half Wave, 60 Hz Resistive or Inductive Load.

For Capacitive Load, Derate Current by 20%.

NOTES: 1. Measured @ 1 MHz and applied reverse voltage of 4.0V.